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Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

selecting an alternative treatment procedure which can ensure highest profit; and  
treating said discarded article on the basis of said selected alternative treatment  
procedure.

### REMARKS

By the present Amendment, claims 1, 9, and 10 have been canceled. Claims 11 - 14 are newly presented for consideration. Accordingly, claims 11 - 14 are now pending in the application. Claims 11, 12, and 14 are independent.

In the Office Action of February 23, 2006, claims 1, 9, and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,654,902 issued to Scheidt et al. ("Scheidt").

The cancellation of claims 1, 9, and 10 has rendered this particular ground of rejection moot.

Claims 11 - 14 are newly presented and better define the invention for which a patent is sought. Independent claim 11 defines a processing method for treatment of discarded articles. The method comprises the steps of:

treating the discarded article on the basis of a selected treatment procedure for segregating harmful or hazardous material to be separated;

monitoring a situation in which said discarded article is being treated and checking whether the relevant work has been completed or will be able to be performed in conformance with the selected treatment procedure through the medium of a detecting means;

reading out, from information concerning said discarded article, alternative treatment procedures serving a same purpose as said selected treatment procedure in case it is decided that said treating situation suffers abnormality;

selecting practicable alternative treatment procedures capable of being carried out by facilities installed in a treatment-

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

entrusted factory which is in charge of treatment of said discarded article;

generating another separation method or procedure for segregating harmful or hazardous material to be separated by cutting said discarded article;

comparing the practicable alternative treatment procedures and another separation procedure with one another and determining the most inexpensive procedure; and

treating said discarded article on the basis of said determined treatment procedure.

According to the processing method defined by independent claim 11, the discarded article is first treated based on a selected treatment procedure for segregating harmful or hazardous materials. The discarded article is monitored while it is being treated and checked to determine whether the relevant work has been completed. Additionally, it is determined whether the relevant work can actually be performed in conformance with the selected treatment procedure, using the medium of a detecting means. Next, alternative treatment procedures are read from information related to the discarded article. The alternative treatment procedures are such that they serve the same purpose as the selected treatment procedure. These alternative treatment procedures are made available in the event it is decided that the treatment situation has some sort of abnormal condition (e.g. cannot be performed or completed). Next, practical alternative treatment procedures capable of being carried out by facilitates installed in the treatment-entrusted factory which is responsible for treatment of the discarded article. Another separation procedure is generated to segregate harmful or hazardous material by cutting the discarded article. The new separation procedure is compared to practical alternative procedures in order to determine the

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

least expressive procedure. The discarded article is subsequently treated based on the determined treatment procedure.

According to the invention defined by independent claim 11, a decision is made on which treatment processing will be used to segregate components of the discarded article based on the quality of material or parts to be segregated. It is also decided which treatment processing will be used for carrying out the segregation process. This is done based on information contained in a storage means provided on the discarded article, product information retrieved from a database, and information regarding the processing apparatus, etc. During each step of the treatment processing, a detection means is made available to determine whether the particular operation can be carried out. If the operation cannot be carried out, then alternative treatment procedures are identified and applied. See Fig. 23 and corresponding text. At least one benefit achieved by the invention defined by independent claim 11 is the ability to segregate harmful and/or hazardous materials from the discarded article being processed by identifying and selecting appropriate treatment procedure.

The Office Action alleges that Scheidt discloses various features of the invention. Based on Applicants' review of Scheidt, however, there does not appear to be any disclosure or suggestion for certain features in recited in newly presented independent claim 11. Scheidt discloses a recyclable component that contains data storage for storing information that can be used to determine the condition of certain recyclable elements and/or subcomponents. A sensor is used to detect the quality or state of the structural component at various times and stored within the actual component or subcomponent. An external connector can be connected to the recyclable component in order to determine the reliability and/or state of the various subcomponents based on information stored in the data storage means. However, the information stored in the

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

data storage of individual subcomponents appears to relate to the operating state of the component. For example, this information can include temperature, acceleration, velocity, voltage, etc. Accordingly, when this information is retrieved from the data storage, it is only suitable for determining whether or not the components can be reused. Scheidt does not appear to provide any disclosure or suggestion as to how the recyclable component can be alternatively processed for recycling.

In contrast, the present invention monitors the treatment procedures while the article is being treated and determines whether or not the relevant work is completed, or is completeable, in accordance with the selected treatment procedure. Further, the present invention retrieves alternative treatment procedures that can perform the same function or achieve the same end result as the selected treatment procedure. The most practical alternative treatment is subsequently selected and the discarded article is treated based on this selection. Scheidt does not appear to disclose or suggest features recited in independent claim 11 such as:

treating the discarded article on the basis of a selected treatment procedure for segregating harmful or hazardous material to be separated;

monitoring a situation in which said discarded article is being treated and checking whether the relevant work has been completed or will be able to be performed in conformance with the selected treatment procedure through the medium of a detecting means;

reading out, from information concerning said discarded article, alternative treatment procedures serving a same purpose as said selected treatment procedure in case it is decided that said treating situation suffers abnormality;

selecting practicable alternative treatment procedures capable of being carried out by facilities installed in a treatment-entrusted factory which is in charge of treatment of said discarded article;

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

generating another separation method or procedure for segregating harmful or hazardous material to be separated by cutting said discarded article;

comparing the practicable alternative treatment procedures and another separation procedure with one another and determining the most inexpensive procedure; and

treating said discarded article on the basis of said determined treatment procedure.

It is therefore respectfully submitted that independent claim 11 is allowable over the art of record.

Independent claim 12 defines a treatment processing method for discarded articles that comprises the steps:

treating the discarded article on the basis of a selected treatment procedure for separating parts incapable of being treated by facilities installed in a treatment-entrusted factory which is in charge of treatment of said discarded article;

monitoring a situation in which said discarded article is being treated and checking whether relevant work has been completed or will be able to be performed in conformance with the selected treatment procedure through a medium of a detecting means;

reading out, from information concerning said discarded article, alternative treatment procedures serving for a same purpose as said selected treatment procedure and information concerning facilities required for executing said alternative treatment procedures, in case it is decided that said treating situation suffers abnormality;

selecting alternative treatment procedure capable of being carried out by facilities installed in the treatment-entrusted factory from the information concerning the facilities installed in the treatment-entrusted factory and the information concerning the facilities required for executing said alternative treatment procedures; and

treating said discarded article in accordance with said selected alternative treatment procedure.

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

According to independent claim 12, the discarded articles are treated based on a selected treatment procedure for separating parts that are incapable of being treated by the treatment factory in charge of treating the discarded article. The discarded article is monitored during treatment and checked to determine whether the relevant work has been completed or whether the work will be able to be performed in conformance with the selected treatment procedure through a recording medium of a detecting means. Alternative treatment procedures capable of achieving the same purpose as the selected treatment procedure are read out. Further, information related to the specific facilities required for executing the alternative treatment procedures are also read out in the event it is determined that the current treatment process cannot be performed. Next, an alternative treatment procedure capable of being carried out by the facilities installed in the treatment-entrusted factory is selected together with information concerning the facilities required to execute the alternative procedures. The discarded article is then treated in accordance with the selected alternative treatment procedure.

As previously discussed with respect to independent claim 11, Scheidt provides a system wherein data concerning the operational state of various components in the device can be determined. This is done so that parts which can be reused are readily identifiable. However, Scheidt makes no attempt at identifying, or selecting, alternative treatment procedures that can be performed in the event a particular treatment cannot be completed. Scheidt does not appear to disclose or suggest various features recited in independent claim 12 such as:

treating the discarded article on the basis of a selected treatment procedure for separating parts incapable of being treated by facilities installed in a treatment-entrusted factory which is in charge of treatment of said discarded article;

monitoring a situation in which said discarded article is being treated and checking whether relevant work has been completed or

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

will be able to be performed in conformance with the selected treatment procedure through a medium of a detecting means;

reading out, from information concerning said discarded article, alternative treatment procedures serving for a same purpose as said selected treatment procedure and information concerning facilities required for executing said alternative treatment procedures, in case it is decided that said treating situation suffers abnormality;

selecting alternative treatment procedure capable of being carried out by facilities installed in the treatment-entrusted factory from the information concerning the facilities installed in the treatment-entrusted factory and the information concerning the facilities required for executing said alternative treatment procedures; and

treating said discarded article in accordance with said selected alternative treatment procedure.

It is therefore respectfully submitted that independent claim 12 is allowable over the art of record.

Claim 13 depends from independent claim 12, and is therefore believed allowable for at least the reasons set forth above with respect to independent claim 12. In addition, this claim introduces novel elements that independently render it patentable over the art of record.

Independent claim 14 defines a treatment processing method for discarded articles that comprises, in part, the steps:

reading out, from information concerning said discarded article, alternative treatment procedures serving for a same purpose as said selected treatment procedure in case it is decided that said treating situation suffers abnormality;

comparing information concerning the purchase prices of the variable things with the cost involved in the separation treatments according to said alternative treatment procedures;

selecting an alternative treatment procedure which can ensure highest profit; and

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

treating said discarded article on the basis of said selected alternative treatment procedure.

In accordance with the treatment processing method of independent claim 14, alternative treatment procedures capable of achieving the same purposes a selected treatment procedure is read out regarding the discarded article. The alternative treatment procedures are useable in the event that the selected treatment procedure cannot be completed due to some abnormal situation. Information concerning the purchase prices of variable components of the discarded article are compared to the cost associated with separation treatments in accordance with the alternative treatment procedures. An alternative treatment procedure resulting in the highest profit level is subsequently selected. The discarded article is then treated in accordance with the finally selected alternative treatment procedure.

As previously discussed, Scheidt appears to only examine the subcomponents of the recyclable device in order to identify whether it is still useable. Scheidt does not appear to select alternative separation treatments based, in part, on the purchase price of items necessary to perform the particular separation treatment. Scheidt also does not appear to provide any disclosure or suggestion, for features recited in independent claim 14 such as:

comparing information concerning the purchase prices of the variable things with the cost involved in the separation treatments according to said alternative treatment procedures;

selecting an alternative treatment procedure which can ensure highest profit; and

treating said discarded article on the basis of said selected alternative treatment procedure.

It is therefore respectfully submitted that independent claim 14 is allowable over the art of record.



Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

For the reasons stated above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a Notice of Allowance is believed in order, and courteously solicited.


If the Examiner believes that there are any matters which can be resolved by way of either a personal or telephone interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

Docket No. 500.36322CX1  
Serial No. 09/621,054  
Office Action Dated: February 23, 2006

**AUTHORIZATION**

Applicants request any shortage or excess in fees in connection with the filing of this paper, including extension of time fees, and for which no other form of payment is offered, be charged or credited to Deposit Account No. 01-2135 (Case: 500.36322CX1).

Respectfully submitted,  
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